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ABSTRACT

This list of research studies in the fields of mathematics and science education was compiled from details provided by universities in England, Scotland, and Wales. It is considered an interim list to supplement an annual publication of an Index to Theses. It is considered as a source of help to supervisors, higher degree students, and others interested in research activities in math and science. Titles are arranged in a simple alphabetical classification. Separate indexes of authors and subjects are provided. Details of the theses are presented in a one or two sentence statement. (EB)

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This list of theses and dissertations has been compiled from details provided by universities in England, Scotland and Wales in response to an inquiry initiated in March 1972. Information was sought on all higher degree theses and dissertations in the fields of science and mathematics education which had been completed since session 1967-68. Previous work is described in the volumes published annually by ASLIB (Index to Theses accepted for Higher Degrees in the Universities of Great Britain and Ireland).* As the time-lag between completion of a thesis and the appearance of details in a published source is normally considerable, it was thought that the preparation of an interim list might be of help to supervisors, higher degree students and others with an interest in research activities in this expanding field.

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* Annual lists of researches in education and educational psychology presented for degrees in Scottish Universities are available as offprints on application to The Scottish Council for Research in Education. Abstracts of Scottish theses are published regularly in Scottish Educational Studies.

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37. The effect on transfer of inductive and expository teaching (Chemistry)
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By R. Tremlett. East Anglia M.Sc. 1970.

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41. An investigation into the effect of task definition on observational attainment in O-level chemistry.
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42. The Reliability and Validity of an Objective Multiple-Choice Test in Chemistry at 'O' Grade.
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43. A study of reminiscence and forgetting in relation to hierarchically organised instruction.
By Dr. W. White. East Anglia M.Sc. 1971.

44. The Teaching of Organic Chemistry in Schools: An evaluation of a new approach.
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By D.E. Eastaugh. Leicester M.Ed. 1971.

By Miss Brenda M. Morgain. Keele M.A. 1969.

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By A.A.D.D. Saparamadu. Leicester M.Ed. 1970

55. An investigation of the effectiveness of directed-discovery methods in the teaching of Physics.
By J.K. Swinswood. Keele M.A. 1969.

56. Adolescent thinking in Physical Science with respect to the secondary modern school.
By J. Wells. Birmingham M.Ed. 1970.

57. A Developmental Study of Children's Ability to Relate the Combination of Length and Weight to Changes in Pitch.
By J. Wilkinson. Dundee M.Ed. 1968.

58. Evaluation of applied science projects.
By G. Cleeton. Birmingham M.Ed. 1970.

59. Investigation, Development and Evaluation of Methods for Introducing Sixth Form Science Students to Physics-based Applied Science.
By G.C. Sneed. Surrey Ph.D. 1971.

60. Some determinants of the formation of children's working groups under an I.D.E.M. programme in the first two years of the secondary school.
By J.E. Allen. Brunel M.Tech. 1971.

61. Attitudes towards Mathematics in the Comprehensive School.
By G.A. Palenger. Bath M.Ed. 1970.

62. Towards individualising Mathematics teaching: an analysis and experimental investigation of some of the variables involved.
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63. Reform in Secondary School Mathematics.
By J. Bradshaw. Dundee M.Ed. 1967.

64. The use of programmed learning to accelerate the acquisition of the concept of number.
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65. Discovery and Freedom in Mathematics Teaching.
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66. New Media in Modern Mathematics. A study of the relative merits of Television and Filmstrip/Sound Tape, with a Modern Mathematics Programme.
By Anna Foxall. Cardiff 1971.

67. An Approach to Number Work in the Infant School in the Light of Piaget's Theories.
By Mrs. I.V. Hewett. Leicester M.Ed. 1969.

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68. The teaching of Mathematics in Secondary Schools with special attention to methods of motivation in the Upper Forms.
By Marguerite E.O. Hughes. Loughborough M.Sc. 1971.

69. The growth of mathematical thinking during the secondary school years.
By E.G. Law. Birmingham M.Ed. 1968.

70. A Study of acceleration of concepts of number in young children through group treatment.
By J. Mason. Bristol M.Ed. 1969.

71. A cross-sectional study of the development of the mathematical concept of a function in secondary schoolchildren of average and above average ability.
By A. Orton. Leeds M. Ed. 1970.

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By M. Preston. Leicester M.Ed. 1968.

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By. E.G. Linfield. Bristol M.Ed. 1968.

79. A study of factors governing the development of science teaching in the junior school, 1945-65.
By B.R. Steven. Sheffield M.Sc. 1970.

80. A study of scientific experiences of groups of primary school children.
By G. Tabbron. Leicester M.Ed. 1970.

81. An enquiry into value judgements made by pupils and teachers on behaviourally defined science teaching objectives.
By Miss D.E. Bealing. Leicester M.Ed. 1971.

82. [illegible] aims and achievements of Scottish science education.
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86. A critical enquiry into the changing content of science teaching in the grammar schools of Carmarthenshire from 1902 to 1965.
By D.E. Lewis. Swansea M.A. 1969.

87. The work of the Technical Instruction Committees, 1889-1902 (with special reference to the West Riding, Lancashire and Northamptonshire).
By P.R. Sharp. Leeds M.Ed. 1969.

88. Reasons given by sixth form boys for choosing a scientific career and an enquiry into factors which may have influenced their choice.
By D.A.H. Weale. Cardiff M.A. 1969.

89. The Scientific Worker: A study of qualified scientists and engineers (QSEs) employed in government and industrial research establishments.
By N.D. Ellis. Leeds Ph.D. 1969.

90. A sociological critique of studies of subject choice in secondary schools with special reference to the swing from science.
By D.A. Gorbutt. London (Institute) M.A. 1970.

91. A study of the system of values held by sixth formers taking Arts and Science subjects.
By S.N. Solomons. Birmingham M.Ed. 1971.

92. A study of certain scientific concepts of thirteen-year-old pupils at a comprehensive school.
By T.G. Davies. Swansea M.Ed. 1970.

93. An exploratory investigation of the conservation of volume in 12-16 year-old Aberdeen school pupils.
By W. Coull. Aberdeen M.Ed. 1971.

94. Creative problem solving, interests and arts and science.
By B.B. Debney. Birmingham M.Ed. 1971.

95. A study of children's responses to open-ended problems.
By. P.N. Holt. Southampton Ph.D. 1969.

96. Development of an Attitude Test for Ordinary National Certificate Students in Sciences.
By I.V. Harrison. Bradford M.Sc. 1971.

97. An Investigation into the Relationship Between Attitudes towards science and Project work in Science Courses.
By J. Wilmut. Bath M.Ed. 1972.

98. The Measurement of Attitude towards Science as a Method Investigation.
By C.S.G. Selmes. Bath M.Ed. 1971.

99. To Develop Criteria and Instruments for Evaluating a Multi Media Teaching Learning Module at First Year University Level.
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99. To Develop Criteria and Instruments for Evaluating a Multi Media Teaching Learning Module at First Year University Level.
By J.E.Smith. Bath M.Ed. 1972.

100. A Comparison of the Use of Programmed Material by Nigerian Children and by Immigrant Children in England.
By J.K. Bunyard. Bath M.Ed. 1971.

101. The use of individual programmed science activities with senior educationally sub-normal children.
By A.H. Shepherd. Southampton M.Phil. 1971.

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102. Structuring in the teaching of science to secondary school pupils of average and less than average ability.
By P.J. Prosser. Bristol M.Ed. 1968.

103. Recent developments in the teaching of general science found in the secondary schools of Gujarat State (India) and in England and Wales.
By Mabel J. Sacha. Birmingham M.Ed. 1969.

104. (Provisional) Responses to Integration: a school-based study of the impact of the Scottish Integrated Science Scheme.
By D.F. Hamilton. Edinburgh Ph.D. 1972.

105. An Analysis of the Social Factors affecting A-level Candidates' Performance in a Comprehensive School.
By M.J. Williams. Bath M.Ed. 1972.

106. Predicting levels of First-Year Student Performance.
By J.D. Wilson. Aberdeen Ph.D. 1970.

107. The development of geology as a school subject in Britain with particular reference to Wales.
By T.L. Grocutt. Swansea M.Ed. 1970.

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ADDENDUM

Since the compilation of the preceeding list of theses information has been provided about the following:

1. A study of the physics education programmes (with special reference to Nuffield Projects) in secondary schools in England and to suggest an adaptation to Indian secondary schools.
   By I. Ahmad. London (Institute) M.A. 1970

2. A study of abilities attitude and interests in relation to attainments of groups of boys studying "Nuffield" and "traditional" physics.
   By A.D. Bates. London (Institute) M.Phil. 1969.

3. An analysis of young children's responses to visually presented mathematical material within an informal school environment.
   By J.F. Deans. London (Institute) M.Phil. 1970.

4. The relationship between mathematics and new developments in secondary school geography.
   By K.C. Girkin. London (Institute) M.A. 1970.

5. The production and use of animated films in the teaching of mathematics.
   By M.J.J. Griffiths. London (Institute) M.Phil. 1969

6. Some factors affecting the performance in arithmetic of cerebral palsied children learning by programmed instruction and by conventional teaching.
   By S. Haskell. London (Institute) Ph.D. 1969.

7. An investigation into the psychological basis underlying mathematics invention and creativity in grammar school boys.
   By N.H.A. Khedre. London (Institute) Ph.D. 1968.

8. An analysis of mathematics and its content in relation to possible uses as subject matter in secondary education.
   By L.G. Pateman. London (Institute) M.A. 1968.

9. A study of the construction, standardization and validation of an achievement test in physics at O-level.
   By S.L. Phua. London (Institute) M.A.

10. An investigation into creative mathematical problem solving processes under group and individual conditions.
    By K. Sawhney. London (Institute) 1969.

11. A study of the development of scientific concepts in children aged from eleven to fifteen years.
    By M.P. Shayer. London (Institute) [illegible]

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10. An investigation into creative mathematical problem solving processes under group and individual conditions.
By K. Sawhney. London (Institute) 1969.

11. A study of the development of scientific concepts in children aged from eleven to fifteen years.
By V.B. Sharma. London (Institute) 1969.

12. Success in different types of tests in mathematics and personality variables.
By G. Singh. London (Institute) M.A. 1969.

13. Nuffield and traditional methods of teaching science compared, using experimental and survey techniques.
By P.A.A. Sutherland. London (Institute) M.A. 1969.